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**Out of hours, out of sight? Uncovering the education potential of general practice urgent care for UK undergraduates.**

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# **Out of hours, out of sight? Uncovering the education potential of general practice urgent care for UK undergraduates.**

## **Abstract**

There is a need to increase undergraduate primary care exposure and subsequently enhance primary care recruitment. This study aims to establish the current use and education potential of the primary care out of hours (OOH) learning environment. This was a mix methods study. A questionnaire was sent to UK primary care heads of teaching nationally to explore the current use of GP OOHs in the undergraduate curriculum and focus groups evaluated final year medical students' experience of an OOH placement. There was a 100% response rate from primary care heads of teaching. Despite 86% being in favour of integrating OOH placements within the undergraduate curriculum, only 28% of medical schools currently offer primary care OOH placements. 36 out of 240 students volunteered for a clinical OOH session. Focus group data from 6 of these students revealed that the placements provided unique learning opportunities and allowed students to appreciate the organisational structure of the National Health service (NHS). However, barriers included logistical difficulties with the OOH providers and inadequate supervision. It appears that we are overlooking a unique educational opportunity for medical undergraduates. With increasing demands for GP exposure within the undergraduate curriculum, GP OOH is a useful resource for UK medical schools.

Keyword: Primary care; general practice; out of hours; undergraduate education

## **Introduction**

The Department of Health in England suggested that 50% of UK medical graduates are needed in GP training posts [1]. This work-force requirement has resulted in medical schools reviewing their primary care placements. It is known that undergraduate medical education influences future career choice [2] and both the quantity [3] and quality [4] of the undergraduate community placements affects students' entry into general practice. In some medical schools' primary care exposure is increased through longitudinal integrated clerkships [5], but this may not be possible across all medical schools and there may be existing opportunities, such as primary care out of hours (OOH) services that could be used.

Undergraduate teaching in primary care in-hours has been extensively evaluated [6,7] and various qualitative studies document the benefits of a primary care attachment in terms of variety of exposure [8], clinical skills teaching [9] and an appreciation for the social dimension of health [10]. However, there appears to be a paucity of literature about the primary care out of hours environment. This OOH environment already provides training for GP registrars and it is appreciated that other challenging OOH settings, such as the emergency department provide educational value [11]. Could the primary care OOH environment provide additional acute care learning opportunities for medical students and create pluripotent practitioners of the future?

In the UK out of hours primary care refers to the provision of GP services outside of 'core contracted hours': from 18:30 to 08:00 Monday to Friday, all weekends and bank holidays. The 2004 change in GP contracts allowed GP's to opt-out of OOH provision for their individual practice population and, as a result, medical students were no longer naturally exposed to GP OOH work. Although the number of patient contacts in OOH is less than in-hours care, the demographic of these contacts appears to be different [12]. The primary care OOH setting would appear to be a novel undergraduate

learning environment, but despite three studies suggesting the benefits of these placements for postgraduate trainees [13, 14,15] and an apparent desire to utilise the primary care OOH setting for undergraduate teaching [16], little is known about the educational potential of the primary care OOH setting for undergraduates.

We aimed to conduct an exploratory study to evaluate the current extent that the primary care OOH setting is being used for medical student teaching nationally. As part of the study students at the University of Bristol were given an opportunity to volunteer for an OOH shift to determine the education potential of the primary care OOH learning environment.

## **Method**

This mixed-methods study had two strands; a questionnaire to UK heads of teaching in primary care to understand the extent of primary care OOH placements nationally and focus groups to explore final year students experience of GP OOH placements.

### ***Questionnaire***

In order to maximise responses, the questionnaire was kept short with yes or no response and free text option, as seen in table 1. It included demographics, on whether primary care OOH placements should be included in the curriculum, details of any OOH placements already in the curriculum and any further comments. The questionnaire was developed from a previous questionnaire used by Owen et al. [16] in their survey of out of hours teaching, to allow comparison between the two studies. The questions were sense-checked by members of the University primary care team to ensure face validity. The final questionnaire was sent out to 36 medical school primary care heads of teaching electronically with an accompanying recruitment email.

### ***Focus groups***

In 2018, 36 final year students from the University of Bristol voluntarily signed up for one OOH shift in their preferred OOH centre. The final year students were on a four week primary care attachment. University of Bristol students have primary care exposure in all undergraduate years, but no prior primary care OOH experience.

We used purposeful sampling of the thirty-six final year students that volunteered to an OOH shift. A total of six students volunteered to participate in two focus groups. This represented the experience from three of the four different OOH providers. The focus groups were facilitated by two investigators who did not know the participants. As recommended by Krueger and Casey [17] the literature review informed the structure of the topic guide and it began with broad questions before probing deeper into specific areas. The groups met for 1 hour and finished when participants had finished talking about their views and experiences.

### ***Ethics***

Approvals for the study were provided by the University of Bristol Ethics committee. The questionnaires were delivered electronically through Bristol on-line surveys and access to this was password controlled. All responses were coded and anonymised. The focus group participants signed a participant information sheets and consent forms, which explicitly stated that quotations might be used for research purposes. The audio-recordings were made using an encrypted tape recorder, the originals were archived securely, and transcripts stored on password-controlled university computer.

### ***Data analysis***

Quantitative data from the questionnaire were represented as a percentage and

corresponding numerical value. All qualitative data from both the focus group audio-recordings and questionnaire were transcribed **by a member of the research team** and anonymised. Transcripts were transferred into the qualitative analysis software package Nvivo. Notes taken during the focus groups were used to enhance interpretation of the transcribed data. Using methods of thematic analysis [18] the data was inductively coded. To enhance rigour in the analysis two additional team members independently read and coded the focus group data. The derived codes from the independent coding were compared with each other and consensus about the coding framework was reached. Key themes were identified from the codes.

## **Results**

All quotations have an identifier attached which represents the unique code or pseudonym of the respondent. Where appropriate the respondent's views are semi-quantified to provide estimates of the prevalence of certain opinions; these figures are only indicative as a qualifying statement were not mandatory.

### ***Questionnaire***

The questionnaire received a 100% response from the 36 current heads of teaching in primary care at UK medical schools. Currently only 28% (10) of medical schools are offering primary care OOH placements. These placements are almost entirely voluntary, involving a small number of sessions and they are for final year medical students. Only three medical schools have attempted compulsory placements.

The majority, 86% (31) of the medical school primary care heads of teaching felt that a primary care OOH placement should be included in the undergraduate curriculum. It was felt that these placements provided a different working environment



and patient population compared to routine in-hours care. Of those who were less enthusiastic about OOH, 8% (3) of the heads of teaching had mixed feelings about a primary care OOH placement and 6% (2) felt that OOH primary care should not be included within the curriculum.

The responses suggested that whilst there was an enthusiasm for primary care placements, few actual placements existed and there were concerns about the logistics of integrating these placements into a medical curriculum including concerns about financial agreements, travel, indemnity and supervision of the students. The key themes with illustrative quotes are shown in the table below (Table 2).

### ***Focus groups***

Six students participated in two focus groups. Three key themes of ‘value added’, ‘barriers’ and ‘suggestions’ emerged during thematic analysis.

### ***Value added***

The OOH placement evoked positive emotions from all the students, with several advantages to a primary care OOH placement including being distinctly different from in-hours primary care, additional educational opportunities and exposing students to the wider structure of the NHS. The acute presentations and social challenges of the patient population challenged the students in terms of history taking and diagnostic reasoning. The one-to-one supervision and multi-professional learning environment **enabled the completion of** workplace-based assessments including case-based discussions and observed clinical skills. The OOH learning environment provided an unexpected opportunity for students to explore the organisational aspects of patient care and the structure of the NHS. These themes are summarised with illustrative quotes in table 3.

### *Barriers*

Despite valuing the placement and having enthusiasm for it, the students agreed with the heads of teaching that there were organisational difficulties with the placements in terms of transport and workflow, and educational aspects including supervision and the student expectation. These themes are summarised with illustrative quotes in table 4.

### *Suggestions*

The student's motivation to volunteer for OOHs shift was the perceived educational opportunities and an interest in acute care as a future career. The students repeatedly expressed a desire for greater expectations of what they could do and clear training for their supervisors. Contrary to the heads of teaching who focused on logistical difficulties of the placement, the students found the placements well organised. The students suggested the shifts should be during busier times and felt that they needed to be more actively involved in patient care. Students highlighted that one educational opportunity of the placement was being able to fulfil assessments. They felt that more thought should be given to specific resources to support learning OOH, such as dual headsets for telephone consultations.

### **Discussion**

This study adds to existing research proposing advantages of increasing primary care placements [9] and exposure of undergraduate students to acute care settings [11]. The qualitative responses from the questionnaire and the medical student focus groups both mentioned the benefits of a primary care OOH placement including educational

opportunities, exposure to a different patient population and allowing an appreciation for the structure of the NHS. However, this study credibly established the current limited use of undergraduate OOH placements.

Previous studies have shown that hospital OOH [19] and emergency department placements [20] offer apparently unique learning environments both in terms of patient populations and student decision-making. In this study both heads of teaching and medical students supported the suggestion from Shona et al. [12] that the primary care OOH patient population represents a different demographic from that seen during in-hours care. Both heads of teaching and students reported that the attachment enhanced knowledge about the primary-secondary care interface and the structure of the NHS. Students felt that this was insufficiently addressed elsewhere in the curriculum, a similar finding to a small study by Butrous et al. [21]. It appears that there is a need for medical students to learn more about the workings of the NHS and how patients can navigate it.

In alignment with socio-cultural learning theory, the students unanimously mentioned the benefits of being actively involved in legitimate participation and thrived on the challenge by making clinical decisions. Given that students are often under-prepared for clinical practice [22], perhaps the value of this authentic environment and preparation for practice is something that needs to be further evaluated.

Despite these perceived benefits only a minority, 28% (10) of universities are offering primary care OOH placements. This is not very different from the situation in 2008 when only two out of 29 medical schools included compulsory OOH placements in the primary care curriculum and 12 out of 29 medical schools offered ad-hoc, voluntary OOH placements [16]. The desire for these placements are balanced with a realism of the difficulty that universities have had in integrating these schemes. Barriers with implementing these placements including logistical difficulties in the engagement

of OOH providers, ensuring suitable supervision, appropriate financial remuneration and transport to the placements. The geographical variation and regular re-organisation of independent OOH providers makes establishing an educational contact difficult and there is no current contractual obligation imposed on OOH providers by the Clinical Commissioning Groups to deliver undergraduate teaching.

It is clearly possible to engage with OOH providers as 10 medical schools have already established these schemes, but to provide sufficient and sustainable placements for a large number of students may be a challenge. The heads of teaching alluded to a historical inadequate remuneration for primary care teaching compared to secondary care placements [23] and if these OOH placements are going to work, they need to be adequately funded and primary care teaching needs to be valued.

### ***Strengths and limitations of this study***

Our study is the first to take a qualitative approach to explore both heads of teaching and students' views on the undergraduate education potential of a primary care OOH learning environment. A coherent and rigorous approach has been taken, including using multiple people during the data analysis, however we do acknowledge that the authors have an interest in primary care curriculum development which may have influenced the analysis.

The 100% questionnaire response rate from the heads of teaching allowed a representative view, but qualitative responses were not a mandatory requirement and more extensive answers appear to have been provided by institutions with a positive experience. The focus groups have potential bias in that by the nature of the students volunteering for the OOH placements they may be more likely to see the benefits of such a placement and the small focus group size represented only students from one

OOH session at one medical school which limits the claim of theoretical saturation. A larger cohort is required to fully establish the education potential of these placements.

### *Implications for practice*

#### (1) Get buy-in from the independent out of hours providers

With such disparity in out of hours provision and difficulties reflected by the medical schools' heads of teaching in engaging with providers, it would be beneficial to meet directly with the individual OOH providers or with the CCGs that commission the service. This could be used to highlight the potential benefits to providers of supervisors training and potential financial remuneration if formal placements are established.

#### (2) Ensure adequate training for supervisors

Adequate supervision is essential in facilitating student learning. There is an opportunity for inter-professional learning with nurse practitioner supervisors, but clear training and awareness of the students' experience and learning requirements are necessary to ensure legitimate peripheral participation.

#### (3) Harness the unique opportunities

Placements should have specific learning objectives which focus on the unique opportunities within an OOH setting including appreciation of a different patient demographic, increased focus on decision making and exposure to the primary-secondary care interface.

#### (4) Curriculum developments

If OOH placements do not feature in a medical undergraduate curriculum then it would seem important to consider the current undergraduate curriculum and the teaching about the primary-secondary care interface.

## **Conclusion**

It appears that we may be overlooking an educational opportunity for medical undergraduates. Primary care OOH offers educational benefits, a different patient population and exposure to the primary-secondary care interface. With increasing demands for GP exposure within the undergraduate curriculum and a need for enhanced GP recruitment, GP OOH appears to be a useful adjunct to existing primary care placements. Despite enthusiasm by both medical school heads of teaching nationally and Bristol undergraduate medical students, only 10 medical schools are currently offering primary care OOH placements within their curriculum. Reluctance to include such placements are predominately related to organisational, financial and educational concerns. If these OOH placements are to be integrated, there needs to be a dialogue with OOH providers outlining expectations for training and engagement with Health Education England for appropriate funding of primary care teaching [23].

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**Disclosure of interests**

The authors report no potential conflict of interests



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